

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application. Claims 1-19 are currently pending in this application. No new matter has been added. The claims have amended to correct minor informalities. These amendments are non-narrowing. Accordingly, no new matter has been added.

In view of the amendments and remarks herein, Applicants respectfully request that the Examiner withdraw all outstanding rejections and allow the currently pending claims.

Claim Objections

Claims 1-22

The Examiner objects to claims "1-22" and asserts that "[c]laims 1-22 have improper Markush groups". Applicants respectfully traverse.

Initially, Applicants note that it appears that the Examiner has examined original claims 1-22, which were filed in connection with PCT/FI2004/000256 (published as WO 2005/003460).

However, Applicants note that Amended Claim Sheets were filed upon filing the present application with the USPTO. Moreover, a Preliminary Amendment was filed in the present application on December 30, 2005. Claims 1-19 are currently pending in this application.

Claims 1-19 have been amended to correct the informalities identified by the Examiner. Accordingly, this objection is moot. Reconsideration and withdrawal of this objection are respectfully requested.

Claims 4-18

The Examiner objects to claims 4-18 as being of improper form. Applicants respectfully traverse.

As noted above, a Preliminary Amendment was filed in the present application on December 30, 2005, which corrected all improper multiple dependencies.

Accordingly, this objection is moot. Reconsideration and withdrawal of this objection are respectfully requested.

Issues Under 35 U.S.C. 112, 2nd paragraph

Claims 20-22 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. Applicants respectfully traverse.

As noted above, it appears that the Examiner has examined the wrong set of claims. Only claims 1-19 are pending in this application. The present application does not include claims 20-22.

Accordingly, this rejection is moot. Reconsideration and withdrawal of this rejection are respectfully requested.

Issues Under 35 U.S.C. § 102(b)

Claims 1-7, 9-10 and 12-19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by WO 01/49938 (hereinafter WO '938). Applicants respectfully traverse.

The Examiner asserts that WO '938 discloses a packaging material incorporating a sizing composition that comprises a calcium carbonate filler, alkyl ketene dimmer and polyamide-amine epichlorohydrin.

Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of anticipation. For anticipation under 35 U.S.C. §102, the reference must teach each and every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993). To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present". *In re Robertson*, 169 F.3d 743, 49 USPQ2d 1949 (Fed. Cir. 1999). The mere fact that a certain thing may result from a given set of circumstances is not sufficient. *Id.*

The present invention is directed, *inter alia*, to an autoclave package and method of manufacturing the same, wherein the autoclave comprises a fibre-based packaging material treated with a hydrophobic size, **an aluminium compound** and a wet-strength size (e.g., claims 1 and 15) (emphasis added).

As previously noted, it appears that the Examiner has examined original claims 1-22, which were filed in connection with PCT/FI2004/000256. However, Applicants again note that

the claims to which the Examiner appears to refer are not the claims which were filed and are outstanding in the present application.

For instance, the Examiner notes that WO '938 discloses the use of a packaging material comprising a **calcium carbonate filler**. Applicants note, however, that the present claims are not directed nor require calcium carbonate, but rather an **aluminum compound** in the package (emphasis added). As discussed in the present Specification (see, for instance, Example 1), superior results are obtained when using an aluminium compound (alum), such as a reduction of raw edge penetration in harsh autoclaving conditions. WO '938 does not explicitly or implicitly teach the use of an aluminum compound. For this reason alone, this rejection is improper and should be withdrawn.

The present inventors have developed improved autoclave packages exhibiting increased heat resistance, which is manifested as reduced raw-edge water penetration to the fibre substrate at autoclave conditions of 100 to 250 °C (elevated temperature) and under pressure. This is accomplished by treating the substrate with a combination of a hydrophobic size, an aluminium compound and a wet-strength size, as defined in the present claims.

WO '938 discloses a paperboard with enhanced edgewise sizing properties. However, the reference is not directed to autoclave packages. The reference does not describe or suggest thermal treatment of the packages in any manner.

The present invention provides packages which can stand autoclave treatment at elevated temperatures and pressures for a sufficient time to sterilize the packages against microbial growth. WO '938 is silent with regard to whether the treated paperboard disclosed therein would stand the harsh autoclave conditions required in the present invention.

The only reference to heat resistance found in WO '938 is the description of a 3-minute test using hot coffee at 84 °C. This test was performed with a sized paperboard, not with a finished package as in the autoclave treatment of the present invention (which is carried out with superheated steam). It is respectfully submitted that such a generic test cannot in any way anticipate or suggest the use of the material of WO '938 for purposes requiring resistance to autoclaving for a prolonged period of time. The hot coffee test merely shows that the material of WO '938 fulfills the goals mentioned at pages 1-2 of the reference, namely, maintains the aesthetic appearance of its outer surface by masking any unsightly stains on it, and preserves the structural integrity of the container in normal use (which normal use would not comprise subjecting the container to elevated temperatures of 100 °C or more).

Clearly, WO '938 fails to explicitly or implicitly teach each and every aspect of the claimed invention and thus fails to anticipate the same.

Reconsideration and withdrawal of this rejection are thus respectfully requested.

Issues Under 35 U.S.C. § 103(a)

Claim 8

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over WO '938 in view of Rohlf et al. (U.S. 6,489,040) (hereinafter Rohlf '040). Applicants respectfully traverse.

Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Additionally, there must be a reason why one of

ordinary skill in the art would modify the reference or combine reference teachings to obtain the invention. A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR Int'l Co. v Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007). There must be a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *Id.* The Supreme Court of the United States has recently held that the "teaching, suggestion, motivation test" is a valid test for obviousness, albeit one which cannot be too rigidly applied. *Id.* Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Id.*

As discussed above, WO '938 fails to teach an autoclave package and method of manufacturing the same, wherein the autoclave comprises a fibre-based packaging material treated with a hydrophobic size, an aluminium compound and a wet-strength size. Rohlf '040 fails to cure these deficiencies.

Rohlf '040 discloses a gypsum wall board in which at least one of the paper cover sheets is made with neutral size and a cationic polyamide resin. However, Rohlf '040 does not teach or suggest an autoclave package and method of manufacturing as presently claimed.

Because the invention, as set forth in Applicants' claim 8, is not disclosed or made obvious by the cited prior art, reconsideration and withdrawal of this rejection are respectfully requested.

Claim 11

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Akao et al. (U.S. 5,492,741) (hereinafter Akao '741) in view of Penttinen et al. (U.S. 2003/0059591) (hereinafter Penttinen '591) and further in view of WO '938. This rejection is respectfully traversed.

The Examiner acknowledges that Akao '741 in view of Penttinen '591 fails to teach or suggest that the package is treated with a sizing composition as presently claimed, and relies on the teachings of WO '938 to overcome this deficiency.

However, as noted above, WO '938 fails to disclose a package as presently claimed. WO '938 discloses the use of a packaging material comprising a **calcium carbonate filler**. Applicants note, however, that the present claims are not directed nor require calcium carbonate, but rather an **aluminum compound** in the package.

Evidently, the cited references, alone or in combination, fail to teach or suggest every limitation of the instant invention. Accordingly, this rejection is improper.

Reconsideration and withdrawal of this rejection are respectfully requested.

Conclusion

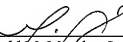
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and objections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. In the event the application is not in condition for allowance, it is submitted that the second Office Action should not be a Final Rejection because the wrong set of claims was originally examined.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gerald M. Murphy, Jr. Reg. No. 28,977 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

Dated: JUL 24 2008

Respectfully submitted,

for By 
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